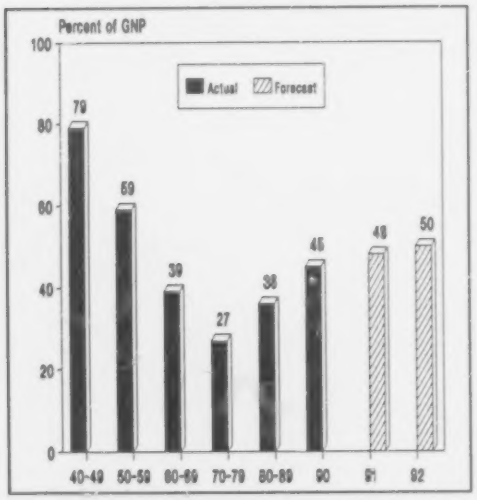
Figure 2
Federal Debt Held by the Public as Percent of GNP, 1940-1992 Actual and Forecast in the 1992 Budget



New Budget Process Built into the 1990 Act

OBRA made broad changes to the rules of the budget process that will affect future tax legislation. The Gramm-Rudman-Hollings rules (GRH) are no longer a constraint on the budget process. The goal of GRH was to reduce the federal budget deficit in gradual steps until it was eliminated in fiscal 1993. The slow economy coupled with the substantial costs of the savings and loan bailout made it impossible to obtain the GRH targets for last year. Under new budget rules, Congress is no longer forced to meet fixed deficit targets. Thus, higher deficits that result from recession, war, or bank failures will not require offsetting tax increases or spending cuts for the purpose of meeting a predetermined deficit target.

The new budget process rules include two new spending limitation mechanisms, which replace GRH rules: caps for discretionary spending and a pay-as-you-go rule for entitlement spending and revenue legislation. Between 1991 and 1993, limits or caps have been placed on discretionary spending (appropriations) in three categories -- defense, international, and domestic programs other than entitlement programs. The caps for fiscal 1994 and 1995 apply to the aggregate of these three categories. If discretionary spending in any of the three categories exceeds the cap of that category, a sequestration will occur to all programs in that category by whatever percentage is needed to reach the cap. Unlike previous law which allowed a tax increase to pay for legislation that increased discretionary spending, this new rule prevents the government from increasing appropriations beyond the limit even if tax revenue can be raised to offset such increases. Any additional military spending required in connection with the Gulf war, however, would not be subject to the cap on defense spending.

The other budget rule, known as the pay-as-you-go provision, requires that the deficit not be increased because of newly-enacted legislation that affects tax revenues or entitlement spending. That is, the aggregate of legislated changes in revenues for a year, when added to the aggregate of legislated changes in entitlement spending for the year, cannot increase the deficit. If such changes in tax revenue or entitlement spending increase the deficit, certain entitlement programs may be sequestered or tax revenues may be raised to offset such increases. For example, a revenue loss resulting from legislating new or expanding tax incentives could be matched with base-broadening provisions that raise revenues or a mandatory program cut. There are exceptions, however, to this rule. For example, an increase in entitlement spending, such as Medicare, as a result of new legislation must be offset with revenue increases or mandatory spending reductions. However, an increase in Medicare spending attributable to higher-than-expected inflation or lower-than-expected growth would not require a spending cut or a tax increase.

Financing the President's Budget According to the New Budget Process and New Scorekeeping Rules

The President's budget meets the spending caps for discretionary spending. To offset revenue losses from his tax proposals -- ranging from extension of expiring provisions to newly-proposed legislation such as enterprise zones -- the President proposes revenue raisers in the budget including the extension of medicare taxes to all state and local employees, an increase in the Internal Revenue Service enforcement funding, and various new or increased user fees. Furthermore, the President once again scored his proposal to cut the tax rate on capital gains as a revenue-gainer.

To accommodate partisan differences on capital gains, however, the President's budget contains two bottom line estimates for the tax proposals: one counts capital gains as a revenue-gainer; the other omits it. Counting capital gains, the President's tax proposals would lose $2.6

billion from 1992 through 1996. Without capital gains, they would lose $11.7 billion during the same period. The Administration's estimate of a $9.1 billion revenue increase as a result of a capital gains rate cut substantially differs from the Joint Tax Committee's recent estimate that cutting the capital gains rate would lose $10.6 billion over five years.

Under OBRA's budget scorekeeping rules, OMB has the final authority after legislation has been enacted to estimate the legislation's budget effect. The House, however, has amended its rules to provide that Congressional estimates must be incorporated in the statutory language of certain legislation, including any revenue legislation. However, a similar provision has not been adopted by the Senate, and the President has indicated that he would veto any tax or other legislation containing Congressional estimates. The outcome of the conflict between Congress and the Administration on the budget scorekeeping rule will have an important implication with respect to the capital gains issue. If OMB estimates prevail, a capital gains reduction could provide revenue to pay for other revenue-losing provisions in the budget. On the other hand, if Congressional estimates prevail, other sources of revenue could be necessary to offset the revenue loss from the capital gains rate cut.

The Capital Gains Proposal

To resolve a controversy over revenues from his capital gains proposal, the President has called for a study of capital gains estimates by a bipartisan commission chaired by the Federal Reserve Chairman Alan Greenspan. The President hopes that a technical study from an independent group would resolve the political and technical controversies currently clouding the capital gains rate issue.

As he spoke to the Banking Committee following his semi-annual report to Congress on monetary policy, the Fed Chairman reiterated his stance that the current capital gains tax should not be just reduced, but rather eliminated if the nation is to foster increased investment and economic growth. The tax on capital gains, he argued, raises revenue at the expense of investment incentives and growth.

The President's proposal on capital gains this year is identical to the one he submitted last year. To spur long-term growth, the proposal would allow taxpayers to exclude from their income a portion of profits from the sales of assets, such as real property, ranging from 10 percent to 30 percent, depending on how long the assets are held. The President proposed a 30-percent capital gains exclusion for assets, excluding collectibles, held more than three years; a 20-percent exclusion for assets held more than two years; and a 10-percent exclusion for assets held more than one year. These exclusions would be fully phased in by 1993. As a result of the exclusion under this proposal, beginning 1993, the top tax rates on capital gains would be reduced from the current top rate of 28 percent depending on holding periods, as shown below:

Term	Exclusion	Effective Top Tax Rate
3 years	30%	19.6%
2 years	20	22.4
1 year	10	25.2

Low-Income Housing Credit

The President proposed a one-year extension for the expiring low-income housing tax credit (section 42) enacted in 1986. This provision has gained numerous supporters from Capitol Hill. In January, Senate Majority Leader George J. Mitchell, D-Maine, with 61 cosponsors, introduced a bill (S. 308) that would extend the low-income housing credit permanently as opposed to the one-year extension proposed by the President. Among the cosponsors were 12 members of the Senate Finance Committee.

The majority leader noted that, given the tight budgetary constraints, it will be difficult to extend any of the expiring tax credits. He believes that the low-income housing credit, however, deserves to be made permanent because incentives for low-income housing have traditionally been a part of the tax system. Moreover, the tax credit has helped produce almost 300,000 housing units for low- and middle-income families and has proved to be an effective means of stimulating low-income housing development. A similar bill (H.R. 413) has been introduced by House Ways and Means member Charles B. Rangel, D-N.Y.

Mortgage Revenue Bonds and Mortgage Credit Certificates

Under the President's budget, expiring provisions of mortgage revenue bonds and mortgage credit certificates would not be extended. There is, however, some interest on the Hill to extend these expiring provisions.

On the House side, Rep. Barbara Kennelly, D-Conn., has introduced legislation (H.R. 1067) to make the mortgage revenue bond and mortgage

credit certificate programs permanent. The bill was cosponsored by 21 of the 36 members of the Ways and Means Committee, marking the first time a bill to extend the credits has been introduced with a majority of Ways and Means members as cosponsors. The bill also has 37 other cosponsors. A similar bill (H.R. 1070) has been introduced by Rep. Ronald K. Nachtley, R-R.I.

On the Senate side, Finance Committee member John Chafee, R-R.I., has introduced a bill (S. 167) to extend the mortgage revenue bond credits permanently. The bill has 74 Senate cosponsors.

Health Insurance Deduction for Self-Employed

The President's budget also proposed a 1-year extension of the provision to allow a 25 percent deduction for health insurance premiums of self-employed individuals. Currently, some tax writers are seeking full health insurance deduction for those who are self-employed.

House Ways and Means Committee member Byron L. Dorgan, D-N.D., has introduced a bill (H.R. 784), along with five other committee members, that would phase in 100-percent deductibility for the health insurance costs of self-employed taxpayers over five years. The bill would extend the current 25-percent deduction through 1993, increase it to 50 percent in 1994 and then allow a full deduction in 1996. A similar bill (S. 315) has also been introduced by Senator Robert Kasten, R-Wis.

IRAs for First-Time Homebuyers

To expand homeownership opportunities for first-time homebuyers who usually have difficulty accumulating the savings necessary for a downpayment, the President has included a proposal in his budget that would waive the 10-percent excise tax for first-time homebuyers on early withdrawals from IRAs to purchase homes. According to the proposal, the withdrawal could not exceed $10,000, and the price of the home could not exceed 110 percent of the median home price.

Similar bills allowing penalty-free withdrawal from IRAs have also been introduced on the Hill. On the House side, Ways and Means Committee member Robert Matsui, D-Calif., has introduced a bill (H.R. 1114) that would allow a penalty-free withdrawal from IRAs to purchase homes for IRA holders, spouses, parents and grandparents. Committee member Richard T. Schulze, R-Pa., is among cosponsors.

On the Senate side, Finance Committee member Donald W. Riegle, Jr., D-Mich., has introduced a bill (S. 307) that would allow first-time homebuyers to withdraw up to $10,000 penalty-free from IRAs to purchase principal residences. Under his proposal, IRA holders must wait at least 12 months before withdrawing from their IRAs. Also, they would be required to purchase homes within 90 days of withdrawing the funds.

In addition, Senator Lloyd Bentsen, D-Texas, Chairman of the Senate Finance Committee and fellow committee member William V. Roth, Jr., R-Del., are promoting a more generous proposal known as the Bentsen-Roth bill to be introduced this March. Among other things, the bill would allow penalty-free withdrawals from IRAs for education and major medical expenses as well as home purchases and would restore the deductibility of IRAs for upper-income taxpayers.

Enterprise Zones

The President's budget proposes establishment of "enterprise zones" to provide tax incentives for investment in up to 50 economically distressed areas. Incentives would include elimination of the capital gains tax on investment in tangible property located in the zones for at least two years, expensing of investments in certain corporate stock issued by businesses located in the zones, and 5-percent refundable tax credits of up to $525 per employee working in a zone.

Although there was wide support in Congress and the Administration for preferential tax treatment for employers who relocate in economically distressed areas last year, Congress failed to pass a bill establishing enterprise zones. On the house side, bills similar to the President's proposal were introduced by Ways and Mean Chairman Dan Rostenkowski, D-Ill., and Rep. Charles Rangel. On the Senate side, Finance Committee member Max Baucus, D-Mont., also introduced a bill authorizing the establishment of enterprize zones.

This year, Chairman Rostenkowski has reintroduced a bill establishing up to 25 enterprise zones. The bill would provide incentives that include a 10-percent wage credit for small business employers, a liberalized rehabilitation credit, 60-month amortization of child care facilities, deferral of capital gains that individuals reinvest in a zone, and ordinary loss treatment for losses on the stock or debt of corporations whose activities are concentrated in a zone.

HOME and HOPE

The new housing programs getting the most attention in the budget are Homeownership and Opportunity for People Everywhere (HOPE) and HOME Investment Partnerships (HOME), created by the National Affordable Housing Act passed last fall.

HOPE is the administration-backed initiative to help public housing residents and other low-income people buy homes. HUD estimates that 25,000 families or individuals will be able to purchase apartments or houses in the next two years.[5] Other families will be able to purchase single-family homes and units in apartment buildings that were acquired by the government after owners defaulted on HUD-insured mortgages. The Administration requested $855 million for HOPE in 1992.

HOME, initiated by Congress, will give local governments money to buy, build or rehabilitate rental housing for the poor. Local officials must provide matching funds of 25 to 50 percent of the federal grants, depending on how the money is used. Under the President's budget proposals, this program would receive $1 billion in 1992, much less than the amount envisioned in the Housing Act.

Conclusions

The projected deficit for fiscal 1992 revealed by the President's 1992 budget proposals showed little improvement over the record level of estimated deficit for fiscal 1991. The new budget process under OBRA has changed the way that discretionary spending, entitlement spending, and tax legislation are proposed in the budget. The new rules establish annual limits for discretionary spending and require that legislated changes in entitlement spending and revenues may not increase the deficit. The deficit outlook may be much worse than projected if the economy does not rebound as quickly as projected and if many savings and loan institutions continue to be insolvent.

The budget acknowledged that the nation is in recession but predicted a quick recovery by the end of the year. Most of the proposals are leftovers from previous years and there are no specific proposals to combat the recession. Simply put by Treasury Secretary Nicholas Brady, "The underlying theme [of the budget proposals], except for reintroduction of capital gains, is to leave the tax system as it is." However, many on the Hill see the capital gains proposal as an invitation for other kinds of tax changes and a trigger for the debate on the fairness issue once again.[6]

by

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Endnotes

[1] The budget accounted for the costs of Operation Desert Shield, excluding expected contributions from allies, for $8 billion for the current fiscal year 1991 and $5 billion for the next fiscal year. The costs of Operation Desert Storm are scheduled to be addressed at a March 14 hearing of the Ways and Means Committee.

[2] As a percentage of gross national product, projected fiscal 1991 deficit is the second largest post-war deficit, 5.7 percent, compared to 6.3 percent in 1983.

[3] *Daily Treasury Statement*, Department of the Treasury.

[4] Debt held by the public means gross federal debt minus debt held by federal government accounts, such as debt owned by Social Security trust fund. The debt amount subject to the limit under OBRA 1990 equals gross debt minus discount adjustment from the unamortized portion of zero-coupon Treasury bonds.

[5] See Ann Mariano, "Kemp Plans Funding for Pet Programs," the *Washington Post*, February 15, 1991, p. A19.

[6] See Jackie Calmes, "Bush Proposal Revives Plan on Capital Gains," the *Washington Post*, February 5, 1991, p. A16.

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CHECKING THE NATION'S VITAL SIGNS - NAR HOUSING AFFORDABILITY INDICES

Home ownership is vital to the financial well-being of many households. Equity in the housing asset accounts for just over one-half of the wealth of typical first-time home owners. The contribution of home equity to the wealth of nonfirst-time home owners, older home owners, and high income home owners, is smaller. Nevertheless, it is a major source of wealth even for these households.

Many analysts suggest *social* benefits -- which transcend the individual household -- accrue to the housing asset, unlike other savings instruments. For example, a 1988 NAR study finds that home owners are typically more involved in political and community activities.[1] Another study finds home owners typically maintain their residences in better condition than similar renters.[2]

Home ownership's importance for the economic well-being of households and its social benefits demand an accurate assessment of its affordability. But how do we measure housing affordability?

This is the first in a series of articles which surveys the indices and measures used to diagnose affordability problems for prospective home buyers, renters, and home owners. This article will look at four NATIONAL ASSOCIATION OF REALTORS®, (NAR) affordability indices (AIs) to *prospective home buyers*.

The first section of this article examines the mechanics of the NATIONAL ASSOCIATION OF REALTORS® Composite, Fixed Rate Mortgage, and Adjustable Rate Mortgage AIs, and the relationship among the three AIs. The second and third sections investigate the responsiveness of the AIs to changing house prices, mortgage rates, incomes, financing and underwriting assumptions. NAR's First-Time Home Buyer Affordability Index and the adjustments it makes for the unique characteristics of first-time buyers, the homes they purchase, and the financing they obtain, is the subject of the fourth section. The limitations of all four of the indices -- Composite, Fixed-Rate, Adjustable-Rate, and First-Time Home Buyer Composite -- are addressed in the fifth section. The last section summarizes the article and previews the affordability measures to be addressed in the next article in the series.

NATIONAL ASSOCIATION OF REALTORS® Composite, Adjustable Rate, and Fixed Rate Affordability Indices

The NATIONAL ASSOCIATION OF REALTORS® Affordability Indices (AIs) track the relationship between incomes and house prices. Namely, the NAR AIs measure the potential home buyer's ability to meet the debt-service requirements of the mortgage.

NAR first calculates the income needed by a prospective home buyer to qualify for a mortgage loan on a median-priced, existing home by using a 25 percent qualifying ratio. In other words, a potential borrower is qualified for a loan if the *principal* and *interest* payment does not exceed 25 percent of borrower pre-tax income. The secondary mortgage market, on the other hand, established a 28 percent maximum principal, interest, *taxes* and *insurance* (PITI)-to-income qualifying ratio. Because the *American Housing Survey for the United States: 1987* indicates home owners spent two percent of their incomes for property taxes and nearly one percent for hazard insurance, NAR subtracts out three percent to arrive at 25 percent. NAR further assumes that a lender will lend if the principal and interest payment does not exceed one-quarter of borrower income.[3] The AI compares median family income to the income needed to qualify for the mortgage.

$$\text{NAR AI} = \frac{\text{Median Family Income}}{\text{Qualifying Income}} \times 100$$

The AI is 100 when median family income equals qualifying income; exceeds 100 when median family income is greater than qualifying income; falls below 100 when median family income is less than qualifying income. An AI value of 100 or more means that the median-income family is financially qualified, based on the simplest lender ratio, to obtain a mortgage on the median-priced home.

NAR calculates three indices corresponding to three financing assumptions. The Fixed Rate Mortgage (FRM) AI is based on interest rates on fixed rate mortgages; the Adjustable Rate Mortgage (ARM) AI on interest rates on adjustable rate mortgages; and the Composite AI on the average interest rate on fixed and adjustable rate mortgages (weighted average based on the relative shares of FRMs and ARMs closed on existing homes). All three carry a term of 30 years and a 20 percent equity downpayment, and all three AIs are calculated for the United States as a whole. (See Exhibit 1 at end of article for data sources, geographic coverage, years available and other

information relevant to the Affordability Indices discussed here).

NAR also calculates the Composite, FRM and ARM AIs by region. The regional housing affordability indices reveal a striking difference in housing affordability among the Northeast, South, Midwest, and West. The AIs associated with the South and Midwest are typically higher than those of the Northeast and West.

Finally, NAR derives the Composite AI for 22 select metropolitan areas. The Composite AIs for metropolitan areas differ somewhat in that they compare the median *household* income in the area to the income needed to qualify for the mortgage. (See Exhibit 1 at end of article).

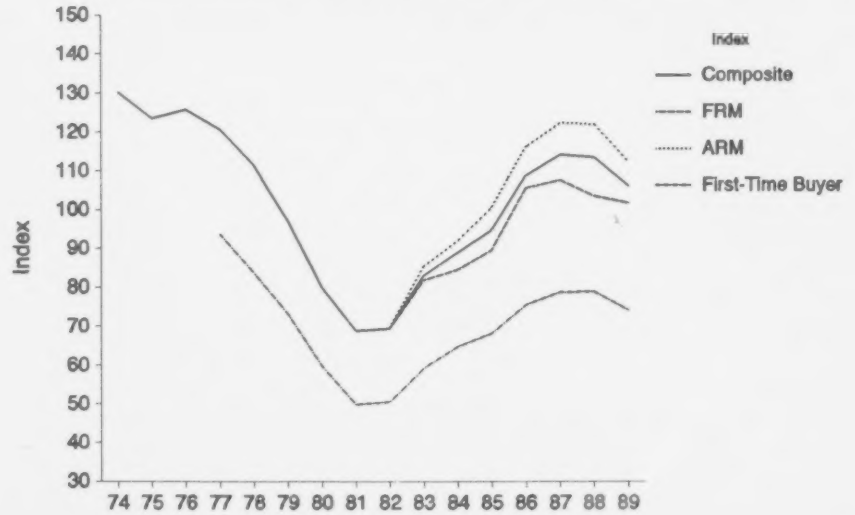
While the AIs change over time, the relationship between the three indices is constant: the FRM AI is the lowest, the ARM AI is the highest. This constant relationship derives from a lender's ability to adjust the rate on an ARM at set intervals, thereby reducing the risk associated with "lending long." The lender can offer a lower initial mortgage rate and, thus, a lower principal and interest payment. (It is important to note the ARM AI does not take into account subsequent adjustments to the mortgage rate). The lower monthly payment lowers the income needed to qualify, and the lower qualifying income raises the ARM AI above the FRM AI. (See Graph 1 for trends in and relationship among the three indices. The First-Time Home Buyer Index, to be discussed later, also appears on the Graph 1).

How Sensitive Are the AIs?

How sensitive are the affordability indices to changes in home prices? mortgage rates? family incomes? To answer these questions, we will look at the impact on the NAR Composite AI for the United States of a one percent change from the 1990 baseline in each of these components. The effects on the Composite AI of a one percent increase in median house price from $95,500 to $96,455; a mortgage rate increase from 10.04 percent to 10.14 percent; a median income increase from $35,581 to $35,937, are a decrease of 1.1, a decrease of 0.9, and an increase of 1.1 percent, respectively. (A one percent *decline* from the 1990 baseline in each of the components has the same effect only *in the opposite direction*). But, what happens if house prices and incomes both increase by one percent above the 1990 baseline; in other words, the median house price increases from $95,500 to $96,455 *and* the median family income increases from $35,581 to $35,937? The negative

Graph 1

NAR HOUSING AFFORDABILITY INDICES



SOURCE: Home Sales Yearbook: 1989, NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division, 1990

impact on the Composite AI of the one percent increase in the home price is nullified by the positive impact of the one percent increase in family income. The Composite Affordability Index, therefore, is unaffected by equal changes in home prices and incomes. Since in the long-run, home prices and incomes generally move together, the mortgage rate appears to be the "driving force." (This will be discussed in some detail in the next section).

Are the impacts on the Composite Affordability Index of changes in home prices, mortgage rates, and family incomes the same for different assumptions about the baseline? The answer is, while the *direction* of the change in the AI would be the same, the *magnitude* of the change would differ. Take the high-priced Boston market where the median home price for third quarter 1990 (baseline price) is $175,900. A one percent increase above the baseline would raise the median price to $177,659. The qualifying income would then increase from $60,678 to $61,285. (Median household income is unaffected by the rise in home price, and is $36,914 in Boston during the third quarter of 1990). The Composite Affordability Index for Boston, therefore, would fall from 60.8 to 60.2 -- a decline of 0.6. Similarly, a one percent increase in the mortgage rate above the Boston third-quarter 1990 baseline would decrease the Composite AI by 0.5; a one percent rise in median household income above the baseline would increase the Composite AI by 0.6. Finally, simultaneous increases of one percent in home price and household income leave the NAR Composite Affordability Index for Boston unchanged.

Table 1 shows how the Composite AI for the United States responds to *typical* changes in the components and underlying assumptions of the NAR Composite AI. A four percent increase in home prices (Line 2), typical of those experienced during the late 1980s, raises the mortgage principal and interest payment and the qualifying income above the 1990 baseline. Thus the ratio between median family and qualifying income, that is the Affordability Index, decreases by 4.2 points.

An increase in the mortgage rate (Line 3) also reduces the Composite AI. A five percent increase in the mortgage rate, that is, a one-half of one percentage point rise (other assumptions remain the same as in 1990) increases the monthly principal

TABLE 1

SENSITIVITY OF NAR COMPOSITE AFFORDABILITY INDEX TO CHANGING ASSUMPTIONS

	Home Price	Mort-gage Rate	Principal and Interest	Property Tax and Insurance	Monthly Mortgage Payment	Payment as % of Family Income	Median Family Income	Qualify-ing Income	Composite Afford-ability Index	Difference From Baseline Index
1990 baseline*	$95,500	10.04%	$673	-	$673	22.7%	$35,581	$32,286	110.2	-
Typical variations in baseline assumptions:										
4% rise in home price	99,320	10.04	699	-	699	23.6	35,581	33,552	106.0	(4.2)
5% rise in mort-gage rate	95,500	10.54	701	-	701	23.6	35,581	33,655	105.7	(4.5)
5% rise in family incomes	95,500	10.04	673	-	673	21.6	37,360	32,286	115.7	5.5
10% down payment	95,500	10.29**	773	-	773	26.1	35,581	37,092	95.9	(14.3)
28% maxi-mum PITI-to-income	95,500	10.04	673	89	762	25.7	35,581	32,655	109	(1.2)

* Existing and New, Single-Family Apartment Condos and Co-ops, NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division, January 1991.
** Includes 0.25 percentage points for private mortgage insurance.

and interest payment, the qualifying income, and ultimately reduces the Composite AI by 4.5 points.

Family income changes (Line 4) also affect the Index. Unlike home prices and mortgage rates, however, changes in family income do not affect qualifying income. Rather, a change in family income alters the ratio of family income to the income needed to qualify. A five percent increase in median family income (an increase typical of the mid- to late-1980s) raises the AI 5.5 points above the 1990 baseline.

Line 5 highlights the "trade-off" a borrower makes when he obtains a mortgage with a lower equity downpayment. The lower 10 percent downpayment boosts the monthly mortgage payment above the baseline in two ways. First, the amount of principal the borrower must repay increases. Second, the lender requires the borrower to obtain private mortgage insurance until the borrower's equity stake in the home reaches 20 percent through principal repayment and price appreciation. (NAR adds 0.25 percentage points to the mortgage rate to account for the private mortgage insurance required). The increased principal amount and the mortgage insurance required raise the monthly payment by $100, roughly *15 percent*. The income needed to qualify increases from $32,286 to $37,092, well above the median family income of $35,581. The AI falls to 95.9 -- nearly *15 percent* below the 110.2 associated with the 1990 baseline.

Changing to a 28 percent maximum PITI-to-income convention (Line 6) has little effect on the Composite AI. As previously stated, home owners spent roughly three percent of their incomes for property taxes and insurance combined. An appropriate estimate of monthly property taxes and insurance payments for this example, then, is (3%) x ($35,581 median family income) / (12 months) or $89. The total monthly mortgage payment goes up by this $89. The income needed to qualify increases by only *one percent*, and the AI decreases by just over *one percent*.

Are the AIs Hypersensitive to Mortgage Conditions?

A look at NAR AIs over the past two decades establishes the interest rate as the "driver" of the AI. This is not surprising given that NAR began calculating the AI in 1982 *specifically* to examine how high interest rates hurt the housing market. R. Kamath in "The Measurement of Housing Affordability" (1988) finds that changing mortgage rates accounted for much of the movement in the NAR Composite AI for the United States during 1972, 1979, 1981, and 1982.[4] Since home prices and incomes generally move in tandem, large swings in the mortgage rate make the AI volatile.

Data on home prices, income, and interest rate dynamics since 1982 highlight this sensitivity. Table 2 shows that the favorable interest rate climate until 1988 (decreases in each year until 1988) yielded increases in the Composite AI each year, despite *rising home prices*. The slight rise in interest rates in 1988 caused a slight drop in the Composite AI. But in 1989, the nearly nine percent rise (rise of nearly one percentage point) in the mortgage rate caused the AI to drop from 113.5 to 108.1.

Getting to the Root of the Problem:
NAR First-Time Home Buyer Affordability Index

The NATIONAL ASSOCIATION OF REALTORS® also calculates a First-Time Home Buyer AI to recognize the special characteristics of first-time home buyers and the homes they purchase. (See Exhibit 1 at end of article for data sources, geographic coverage, years available and assumptions. Refer to Graph 1 for historical trend in First-Time Home Buyer Index). Home sales data from NAR's *Home Buying and Selling Process: 1987*, reinforced by data from NAR's report, *Home Financing Transaction: 1987*, suggest the median sales price of homes purchased by first-time home buyers is only 85 percent of the median price of homes purchased by all home buyers combined. The First-Time Home Buyer AI, therefore, uses this lower price.

Aside from property characteristics, the financial characteristics of prospective first-time home buyers differ from the overall home buying population. NAR finds that income for young (ages 25 to 44) renting families, the group most likely to purchase a first home, is about 30 percent lower than the median income for all families. The First-Time Home Buyer AI considers this lower income in its calculation. Also, prospective first-time home buyers generally have less savings because they are younger. This lower savings coupled with their absence of home equity means first-time buyers typically make downpayments of seven to ten percent. The First-Time Home Buyer AI considers these factors and uses a 10 percent downpayment, adding one-quarter of one percentage point to the mortgage rate for the required private mortgage insurance. (It is important to note that prospective buyers with less than a 10 percent downpayment are entirely lost to the index).

TABLE 2

HOME OWNERSHIP AFFORDABILITY

	Median-Priced Existing Single-Family Home	Percent Change	Mortgage Rate*	Percent Change	Median Family Income**	Percent Change	Composite Affordability Index
1984	$72,400	-	12.49%	-	$26,433	-	89.1
1985	75,500	4.3%	11.74	-6.0%	27,735	4.9%	94.8
1986	80,300	6.4	10.25	-12.7	29,458	6.2	108.9
1987	85,600	6.6	9.28	-9.5	30,970	5.1	114.2
1988	89,300	4.3	9.31	0.3	32,191	3.9	113.5
1989	93,100	4.3	10.11	8.6	34,213	6.3	108.1

*Effective rate on loans closed on existing homes -- Federal Home Loan Bank Board
**U.S. Bureau of the Census data.

SOURCE: *Home Sales: Existing and New Single-Family, Apartment Condos and Co-ops*, NATIONAL ASSOCIATION OF REALTORS®, Economics and Research Division, December 1990, p. 12.

NAR AIs: "Good Tools for Monitoring Improving or Worsening Affordability Conditions"

The most common criticism of the NAR AIs lies in their assumptions about downpayments of prospective first-time home buyers. NAR introduced its First-Time Home Buyer Index in 1988, with its lower 10 percent downpayment to address this criticism as well as the other special characteristics of the first-time buyer. But even this 10 percent downpayment is a troubling assumption for many prospective first-time home buyers. The Joint Center for Housing Studies of Harvard University's *State of the Nation's Housing: 1990* reports that 71 percent of renters between the ages of 25 and 34 have insufficient wealth to make a 10 percent equity downpayment and pay closing costs associated with the home sale. Closing costs are formidable; unpublished NAR tabulations suggest the buyer portion alone can be as high as five to seven percent of the home sales price in some areas.

Another impediment to housing affordability which the NAR AIs do not address is the high cost of *operating* the home once it has been purchased. The home owner must not only pay the mortgage principal and interest, property taxes and hazard insurance, but also must pay other operating costs, including utilities, maintenance and repairs. These costs can be substantial; there is general consensus that annual maintenance and repair costs are on the order of one to three percent of house value.

Other criticisms of the NAR AIs relate to less significant issues than the household's ability to make the downpayment and to operate the home once it has been purchased.[5] Affordability is based on the median-income family finding financing similar to that assumed in the NAR AIs. The NAR AIs also assume that the median-income family would wish to purchase the median-priced home *and* would be willing to spend the maximum percentage of its income for mortgage payments allowed under underwriting guidelines to do so. The monthly mortgage payments of the indices do not include property taxes and insurance, and NAR adjusts the maximum monthly mortgage payment-to-income ratio accordingly. This is troublesome in high property tax localities, where home owners may spend more than the two percent of their incomes for property taxes assumed in the NAR AIs. The NAR AIs (except for the composite, metropolitan area indices) use family income instead of household income, despite increasing home ownership rates among nontraditional household types. The AIs ignore the level of household debt, despite important restrictions imposed by the secondary market on the amount of debt.

The limitations of the NAR AIs do not undermine their worth as good tools for monitoring whether affordability conditions are improving or

worsening in an area. (Refer to Graph 1 for trends in national housing affordability). The NAR Composite AI, in fact, is viewed as a good measure for repeat home buyers, who can "rollover" their equity in their current homes into equity downpayments on the purchase of repeat homes.

Conclusion

Home equity is an important source of wealth for first-time home owners, and to a lesser extent, nonfirst-time home owners, older home owners, and high income home owners. The declining affordability of home ownership, therefore, constitutes a serious threat to the financial health of many of the nation's households by preventing households from accumulating wealth through home equity. The measurement of an affordability problem is essential to its proper treatment. But what instrument is best used for the diagnosis?

The NAR AIs measure housing affordability to prospective home buyers. In particular, they measure the ability of a family with the median income to qualify for a mortgage loan on the existing, median-priced house. The NATIONAL ASSOCIATION OF REALTORS® also calculates first-time home buyer indices which consider the special characteristics of this home buying population.

While the NAR AIs gauge the ability of families to meet the debt-service requirement of the home mortgage based on one lender ratio, they do not address two other important dimensions of home ownership affordability: the family's ability to meet the downpayment and closing costs and the family's ability to "operate" the house once it is purchased. Research, which has already commenced, should continue to be directed toward the measurement of the downpayment/closing cost and operating cost constraints of home ownership.

The next article in the series will begin with a brief discussion of state associations which have calibrated the NAR Affordability Indices to their own housing markets. It will then proceed with an investigation of *market* measures of home ownership affordability. These include the "share of homes" on which the median-income prospective home buyer family can qualify for financing approach and the "share of households" which can qualify for financing on a criterion home approach. The article will then look at the "30-percent of income for housing" affordability measure -- the standard for federal housing subsidy programs, and the Joint Center for Housing Studies of Harvard University's cost burdens. The 30-percent of income standard and cost burdens are particularly relevant for renters and households which already own their homes.

by
Mary Boehling Schwartz
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Forecasting and Policy Analysis Division

1. *Real Estate in the Economy: Impacts on GNP, Income and Employment*, NATIONAL ASSOCIATION OF REALTORS® staff study, November 1988.

2. George C. Galster, "Empirical Evidence on Cross-Tenure Differences in Home Maintenance and Conditions," Land Economics, Vol. 59, (1983).

3. Glenn E. Crellin, *Measuring Housing Affordability: Current Approaches and Future Directions*, paper presented to American Real Estate Society, March 30, 1990. He explains the NATIONAL ASSOCIATION OF REALTORS® rationale for omitting the property tax and insurance components. In particular, he notes that property taxes on "similarly-valued" homes differ markedly among different localities.

4. Ravindra Kamath, "The Measurement of Housing Affordability," Real Estate Issues, Volume 13, No. 2, Fall/Winter 1988.

5. Almon R. Smith, *Housing Affordability Indexes As Predictors of Sales of Existing, Single-Family Homes in the United States*, unpublished dissertation, Nova University, 1988 addresses many of the criticisms of the NAR Composite AI and makes appropriate modifications to his own measure.

EXHIBIT 1

Index (Coverage)	Objective	Home Price	Mortgage Rate *	Mortgage Term	Down Payment	Income	Ratio of Mortgage Payment ** to Income	Years Available
NAR Fixed Rate Mortgage Affordability Index (U.S., four Census Regions)	Can family with median income qualify for financing on median-priced home?	Median-priced, existing, single-family home; from over 475 Boards of Realtors® and Multiple Listing Services	Current, effective mortgage rate on FRMs on loans closed on existing homes; from the Federal Home Loan Bank Board	30 years	20% (80% LTV)	Median family income; from U.S. Bureau of the Census, Series P-60	Cannot exceed 25%	U.S. Index Annually 1970 forward; monthly 1981 forward; Regional monthly July 1989 forward
NAR Adjustable Rate Mortgage Affordability Index (Same as above)	Same as above	Same as above	Current, effective mortgage rate on ARMs on loans closed on existing homes; from the Federal Home Loan Bank Board	Same as above	Same as above	Same as above	Same as above	Same as above
NAR Composite Affordability Index (Same as above plus Select MSAs)	Same as above (except for metropolitan areas - median income household used)	Same as above	Average interest rate on FRMs and ARMs on loans closed on existing homes; current, effective rate; from the Federal Home Loan Bank Board	Same as above	Same as above	Same as above (except for metro-politan areas - household income from CACI) ***	Same as above	U.S. Index Annually 1970 forward; monthly 1971 forward; Regional monthly July 1989 forward; MSA annually 1987 forward; quarterly April 1989 forward
NAR First-Time Home Buyer Composite Affordability Index (U.S.)	Can first-time home buyer family with median income qualify for financing on median-priced starter home?	85% of above	Above rate plus 0.25% for private mortgage insurance (pmi)	Same as above	10% (90% LTV)	Roughly 70% of above	Same as above	Annually 1977 forward; quarterly 1981 forward

* Effective rate includes amortized fees and loan points.

** Mortgage principal and interest payment is calculated from home price, mortgage rate, term and loan-to-value (LTV). The NATIONAL ASSOCIATION OF REALTORS® does not include property taxes and hazard insurance in the mortgage payment.

*** CACI is an international professional and high-technology services organization whose services include the provision of demographic information for U.S. households.

U.S. Economic Outlook: March 1991

Quarterly figures are seasonally adjusted annual rates

	90.3	90.4	91.1	91.2	91.3	91.4	92.1	92.2	1989	1990	1991	1992	1993
U.S. Economy													
Annual Growth Rate													
Real GNP	1.4	-2.0	-2.4	0.2	3.1	3.3	3.2	2.9	2.5	0.9	-0.1	2.9	2.6
Industrial Production	4.0	-7.5	-7.5	-2.3	3.6	3.8	1.9	3.9	2.6	1.0	-2.4	3.5	4.7
Civilian Employment	-1.3	-0.9	-1.9	-0.6	0.3	0.9	1.3	1.5	2.0	0.5	-0.8	1.1	1.4
GNP Inflation Index	3.7	2.8	4.3	3.3	3.1	2.8	3.2	2.6	4.1	4.1	3.5	2.9	2.7
Consumer Prices	6.9	7.0	3.6	2.3	3.7	3.5	3.5	3.3	4.8	5.4	4.4	3.4	3.1
Value of the U.S. Dollar	-20.7	-19.0	-0.2	3.4	1.1	3.7	4.0	3.8	6.2	-9.6	-6.0	3.5	3.1
Percent													
Mfg. Capacity Utilization	82.9	80.7	78.6	77.9	78.4	78.9	79.0	79.4	83.9	82.3	78.4	80.2	82.9
Civilian Unemployment	5.6	5.9	6.5	6.7	6.7	6.6	6.5	6.3	5.3	5.5	6.6	6.2	5.7
Percent of GNP													
Federal Tax Receipts	20.4	20.6	20.5	20.5	20.6	20.7	20.8	20.8	20.2	20.3	20.6	20.8	20.7
Federal Expenditures	23.1	23.7	23.9	24.2	24.0	24.0	24.1	23.7	22.8	23.4	24.0	23.7	23.4
Federal Budget Deficit	-2.6	-3.2	-3.4	-3.7	-3.4	-3.3	-3.2	-2.9	-2.6	-3.0	-3.4	-2.9	-2.7
Interest Rates, Percent													
Federal Funds Rate	8.2	7.7	6.4	6.5	7.0	7.3	7.4	7.3	9.2	8.1	6.8	7.3	7.2
3-Month T-Bill Rate	7.5	7.0	6.0	5.8	6.0	6.2	6.3	6.2	8.1	7.5	6.0	6.3	6.1
Prime Rate	10.0	10.0	9.2	9.2	9.4	9.6	9.0	8.8	10.9	10.0	9.4	8.9	8.8
Discount Rate	7.0	6.9	6.2	6.1	6.3	6.5	6.5	6.5	6.9	7.0	6.2	6.5	6.4
Corporate AAA Bond Yield	9.4	9.3	8.8	8.6	8.4	8.3	8.2	8.1	9.3	9.3	8.5	8.1	8.1
30-Year Government Bond Yield	8.8	8.5	8.1	7.8	7.7	7.7	7.6	7.6	8.4	8.6	7.8	7.6	7.7
Mortgage Rates, Percent													
30-Year Fixed Rate	10.1	10.0	9.3	9.1	8.9	8.9	8.8	8.7	10.3	10.1	9.1	8.8	8.8
1-Year Adjustable	8.4	8.1	7.6	7.4	7.4	7.4	7.4	7.5	9.3	8.4	7.5	7.5	7.5
Home Sales & Starts													
Thousands													
Total Single-Family Sales	4,127	3,879	3,662	3,864	4,163	4,287	4,403	4,491	4,442	4,179	3,994	4,505	4,624
(Single-family resales plus 97% of single-family starts)													
Existing Single-Family Sales	3,297	3,117	2,973	3,081	3,287	3,397	3,469	3,544	3,467	3,305	3,185	3,551	3,666
New Single-Family Sales	523	472	439	462	509	546	568	581	654	533	489	586	620
Housing Starts	1,131	1,044	927	1,010	1,141	1,157	1,225	1,262	1,381	1,203	1,059	1,273	1,307
Single-Family Units	856	786	710	808	903	918	963	976	1,005	901	835	983	987
Multi-Family Units	274	258	218	202	237	239	263	285	376	302	224	290	320
2-4 Family Units	32	31	26	24	29	29	32	34	56	37	27	35	38
5+ Family Units	242	227	191	178	209	210	231	251	320	265	197	255	282
Mobile Homes Shipped	188	178	185	212	230	237	242	245	199	188	216	246	243
Percent change -- Year Ago													
Total Single-Family Sales	-6.5	-13.8	-18.2	-8.7	0.9	10.5	20.2	16.2	-4.4	-5.9	-4.4	12.8	2.6
Existing Single-Family Sales	-4.3	-11.9	-13.6	-8.4	-0.3	9.0	16.7	15.0	-3.6	-4.7	-3.6	11.5	3.2
New Single-Family Sales	-25.2	-27.6	-26.6	-14.3	-2.7	15.7	29.5	25.9	-3.3	-18.5	-8.3	19.8	5.9
Housing Starts	-16.1	-22.8	-35.3	-16.1	0.9	10.9	32.1	24.9	-7.2	-12.9	-12.0	20.2	2.7
Single-Family Units	-14.6	-21.0	-33.3	-9.8	5.5	16.9	35.6	20.8	-7.2	-10.4	-7.3	17.8	0.4
Multi-Family Units	-20.6	-27.9	-41.0	-34.4	-13.4	-7.4	20.8	41.3	-7.2	-19.6	-25.9	29.3	10.6
2-4 Family Units	-43.2	-42.2	-39.2	-44.0	-10.8	-7.4	20.8	41.3	-5.1	-32.8	-27.9	29.3	10.6
5+ Family Units	-16.2	-25.3	-41.3	-32.9	-13.8	-7.4	20.8	41.3	-7.6	-17.3	-25.6	29.3	10.6
Median Home Prices													
Thousands of Dollars													
Existing Home Prices	96.6	92.2	93.6	94.4	95.7	98.7	100.9	101.9	92.9	95.2	95.6	102.5	107.3
New Home Prices	116.7	121.9	122.5	123.2	124.6	126.9	128.7	130.5	120.4	122.1	124.3	131.3	137.8
Percent Change - Year Ago													
Existing Home Prices	1.8	-0.5	-2.4	-1.9	-0.9	7.0	7.8	7.9	4.2	2.5	0.4	7.2	4.6
New Home Prices	-2.5	-2.0	-0.6	-2.7	6.8	4.1	5.1	6.0	6.2	1.4	1.8	5.6	5.0

Forecast produced using Laurence H. Meyer & Associates' model of the U.S. economy.
Assumptions and simulations by Dr. John Tuccillo, Robert Barr and Kimberly Martin.

The *Real Estate Outlook* features a monthly summary of current economic conditions, an easy-to-read forecast for the economy and real estate, and selected reports on issues affecting the housing industry. In addition, one of the Nation's top real estate economists, Dr. John Tuccillo, gives his commentary on the state of the economy and its implications for real estate markets. If you would like to subscribe to the *Real Estate Outlook*, contact the Forecasting and Policy Analysis Division at (202) 383-1131. The annual subscription fee is $25 for members of the NATIONAL ASSOCIATION OF REALTORS® and $30 for nonmembers.

Vol. 4, No. 4

REAL ESTATE OUTLOOK

April 1991

A Monthly Forecast for the Economy and Real Estate

FORECAST SUMMARY

- March's employment figures -- including a jump in the unemployment rate to 6.8 percent -- dispel the notion that February's cease fire in the Persian Gulf would immediately lift the economy out of the downturn. The roots of the recession are deeper than the fall's flare-up of oil prices and plunge in consumer confidence. Nevertheless, the recovery is still expected to be in place by mid-summer. Consequently, the two halves of 1991 will appear in sharp contrast to each other. The first half will see the economy contract at a 1.2 percent annual rate, while the second half is expected to expand at a healthy 3.0 percent annual rate.

- Underlying economic fundamentals suggest that the recession is nearing the end of its run. The Federal Reserve is using monetary policy to promote recovery through lower interest rates. Fiscal policy has also added some short-term stimulus through increased defense spending.

- Good news is also appearing in other, less discretionary, areas. Oil prices seem to have settled down close to $20 per barrel, returning to their pre-invasion levels after flirting with a $40 price last October. The Dow Jones Industrial Average has advanced over 17 percent since the war began, a good sign since a stock market rally during a recession is a reliable predictor of an oncoming recovery.

- Meanwhile, housing starts and home sales both turned up impressively in February after dismal January performances. Led by single-family starts, total housing starts posted a 16.4 percent increase in February, reaching an annual rate of 989,000 units. This increase is the biggest monthly gain in over a year and more than reverses January's steep decline.

- In the market for new homes, sales were 16.2 percent higher than January's level of 402,000 units. Sales of existing homes recorded their largest gain since April of 1986, increasing 7.9 percent to 3.13 million units.

IN THIS ISSUE

NATIONAL ASSOCIATION OF REALTORS®
REALTOR® *The Voice for Real Estate™*

Forecasting & Policy Analysis Division
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Choices

by John A. Tuccillo
Chief Economist and Senior Vice President
Real Estate Finance

Did you ever have to make up your mind?
Pick up on one and leave the other behind?
It's not often easy, it's not often kind.
Did you ever have to make up your mind?

One of the most frightening aspects of large cities is the myriad of choices they present. Where to walk? What to see? Which choice of food? These are compounded in the capitalist world where the market has expanded those choices geometrically. In a sense, life is never as tough as when it presents the most choices. And believe or not, in this second year of the last decade of the Twentieth Century, the American economy is getting real tough.

It doesn't seem that way, though. In the glow of postwar euphoria, Americans have seemingly returned to the habits that built the great expansion of the Eighties. Consumers have come out of their long hibernation of doubt, returned to the mall, and appear to be making up for lost time. And when all the troops finally come home, consumption will get yet another boost.

This seems great, and in a way it is. The current microburst of home sales and construction activity will help end the recession and start the economy back on a growth track. Increased consumption spending will help restore the employment losses that were the immediate cause of the slump. We fully expect that the first quarter of 1991 will be the last for any significant GNP declines for quite a while. The second quarter will be no great shakes (and may even show a slight contraction) but will clearly mark the end of the downturn, and healthy growth will return in the second half of the year.

But that's not the whole story; it may not even be the most important chapter. The resumption of our merry consumption ride will produce short-term growth, jobs and a happier America. But if we allow the nearsightedness that afflicted the Eighties to infect the Nineties, then expansion will be the exception and stagnation the norm.

The catalogue of our woes is long: a federal deficit that not even the riches of Croesus can quench; an aging infrastructure and outmoded capital; an educational system that continues to produce mediocrity; and on and on. None of these problems will reach up and bite us in the near term. If we focus on the joys of victory and resume our spending spree, we can even sweep these under the rug for now.

Eventually, though, these are our challenges. We are facing a real choice. We are rich enough to live well; we are powerful enough to remain a world factor. But over the long haul, our continued well-being requires us to be ants rather than grasshoppers. The real economic need is not renewed consumption, as seductive as that might seem in this time of recession, but rather new investment.

That is much more easily said than done. We are not (thank God!) a centrally planned system where more investment and less consumption can be ordered up. The fragmentation of the Soviet Union shows what a colossal failure that approach can be. In our system, the marketplace provides incentives to move economic agents in one direction or another. The problem is that many of the incentives driving our economy are now operating in the wrong direction.

A marvelous case in point is the withdrawal of the banking system from the real estate finance business. There are many reasons for this: many markets were overbuilt through Eighties euphoria; anti-investment tax changes drained the value from real estate projects; the thrift collapse has sent a shiver through the commercial banking community; and new capital standards are forcing institutions to reorder their portfolios.

But, ultimately, this retreat is good for neither the economy nor the banks. Real estate is a powerful force in national output, accounting for nearly a fifth of all economic activity. To choke the lifeblood from this sector through the denial of credit, and force firm after firm into bankruptcy is so shortsighted as to be ludicrous. Economic correction, like all things, is good only when not overdone.

Similarly, the credit crunch is bad for banking. In the early Eighties, banks were forced out of the commercial loan market by the advent of "junk" bonds. Firms simply went directly to the capital market for funding. Now banks are abandoning the real estate sector of their own volition. What's left? Clearly, the next stop for the banks is to specialize in the financing of consumption, hardly the way to support the economy's long-term investment needs.

Can this be reversed? Perhaps. Even with the new capital regulations, banks could be attracted into longer term financing through changes in the tax system that restore value to investment. Returning to the pre-1986 treatment of capital gains, passive losses in real estate and depreciation lives would restore sufficient value to bring both investors and financing into the reconstruction of our economic infrastructure.

That's but a single example of the challenges that permeate the entire economy. We live in an integrated economy, where technology has brought the world together and is erasing boundaries of time and space. The leaders in that global economy will be the ones who think, plan and act with a long-term perspective, a view that accentuates the future and deemphasizes the present.

Achieving that view in the current economy involves a change of mindset. It's a difficult change, because the past twenty years have seen extreme swings between austerity and excess. It's hard to think of planning for the future except in terms of impoverishing the present. The reality is that the necessary shifts are marginal -- they may pinch but they will not strangle. But it's a challenge. Somewhere between the asceticism of Carter and the overindulgence of Reagan is the fertile middle ground. We need to find and cultivate it.

Outlook for the Economy and Real Estate

Just six weeks ago, it seemed unlikely, but, as of mid-April, neither the Republican Guards nor the recession has been brought to bay. Many thought that February's cease-fire would immediately lift the economy out of the downturn. A recession born of the oil shock and plummeting consumer confidence last fall would fade as quickly as Saddam's army in the onslaught of victory, lower oil prices, and consumer euphoria. But March's employment figures -- including a jump in the unemployment rate to 6.8 percent -- dispel the notion of a quick and easy end to the recession.

Others, including NAR, thought that the recession had deeper roots and would linger for a few more months, like a nagging cough after a bad cold. Although the recession seems to be a more virulent strain than had been diagnosed earlier, the recovery is still expected to be in place by mid-summer. Consequently, the two halves of 1991 will appear in sharp contrast to each other. The first half will see the economy contract at a 1.2 percent annual rate, while the second half is expected to expand at a healthy 3.0 annual rate.

The quarterly pattern of economic growth suggests that the worst of the recession is behind us. After two quarters of contraction, the economy in the April-June period is projected to grow at a slight 0.3 percent annual rate. Growth during this period appears tenuous, and a third consecutive quarter of contraction would not be a surprise. What would be surprising is to have the economy still sliding in the July-September period. Instead, solid growth is expected in the year's third quarter.

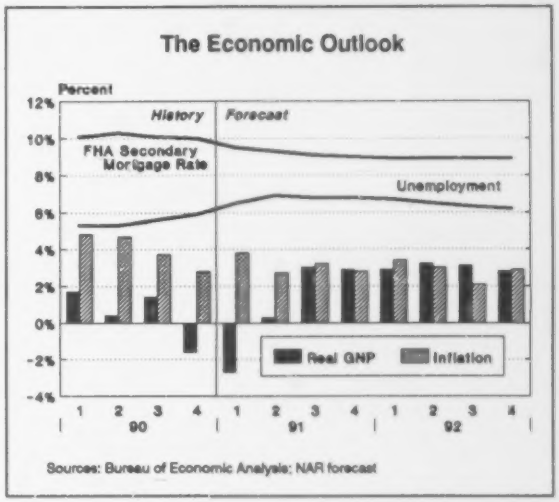
Some Signs of the Sprouting Recovery

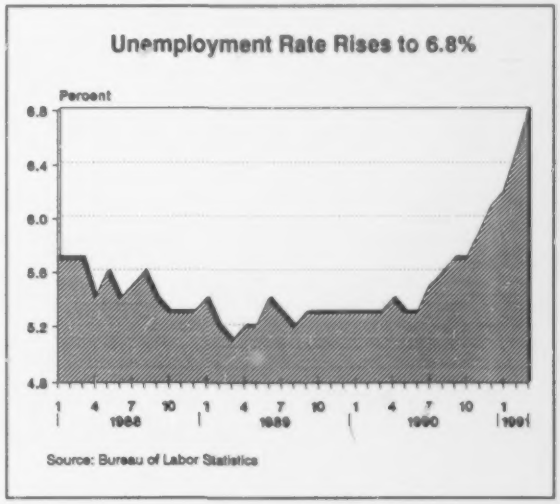
The underlying economic fundamentals suggest that the recession is nearing the end of its run. The Federal Reserve is using monetary policy to promote recovery through lower interest rates. In response, the bellweather federal funds rate has dropped more than 2 percentage points, from about 8.25 percent last su[illegible] to 6 percent for the first week of April. Fiscal p[illegible] practiced by Congress and the Administration, has add[illegible] a short-term stimulus through increased defense spending, countering the contractionary effects of the higher taxes resulting from last fall's budget agreement.

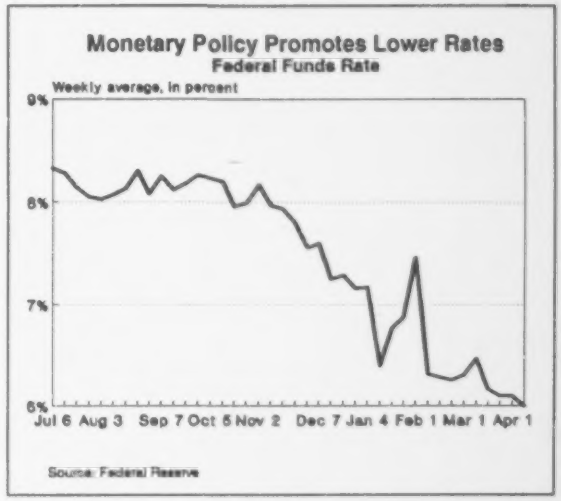
Good news is appearing in other, less discretionary, areas. Oil prices seem to have settled down close to $20 per barrel, returning to their pre-invasion levels after flirting with a $40 price last October. The Dow Jones Industrial Average has advanced over 17 percent since the war began, which is a good sign since a stock market rally during a recession is a reliable predictor of an oncoming recovery. Meanwhile, home sales and housing starts both turned up impressively in February after dismal January performances. While construction expenditures and manufacturers' orders both slipped in February, the declines were significantly less than the declines recorded in January, suggesting a recession hitting bottom.

Consumers Continue to Hold Back

In the Eighties, the expansion seemed like the Energizer bunny -- it just kept going and going and going. But slowing income growth, stalled productivity gains, sagging job creation and stubborn inflation sapped the economy of







its energy. Seemingly indefatigable consumers, who account for about two-thirds of demand in the economy, wound down their spending at the end of the decade. As illustrated by the chart to the immediate right, consumer spending was sharply lower in the 1989-90 period relative to the expansion as a whole. This retrenchment made the expansion vulnerable to last fall's oil shock.

Squeezed by prospective job losses and slow income growth, consumers aren't ready to power the recovery just yet. By saving at historically low rates, consumers didn't create much of a safety net for themselves during the last half of the Eighties. Certainly consumers are perkier now than nine months ago, but, relative to other recoveries, they are remaining very careful with their cash. Auto sales in March were poor, and there are indications that consumer demand in other areas remained sluggish. The rebound in consumer spending in the third quarter is expected to be only two-thirds of the typical gain recorded in the first full quarter of recovery.

Rebound's Vigor Reined in By Financial Stress

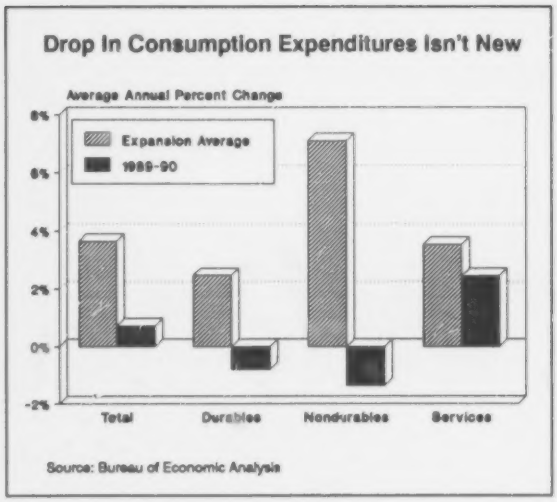
In addition to cautious consumers, the credit crunch is expected to inhibit the recovery in the second half of 1991. Credit demand will pick up as the economy rebounds, but the struggling banking sector will continue to be extremely careful about making loans. Since banks are an important conduit in translating the Fed's easier monetary policy into a solid recovery, their inability or unwillingness to extend credit could seriously hamper the recovery. Nowhere will this be more evident than in the real estate industry.

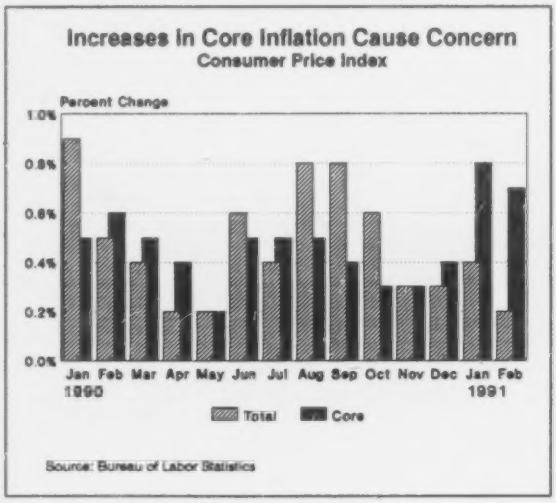
Waiting for the Monetary Tonic to Work

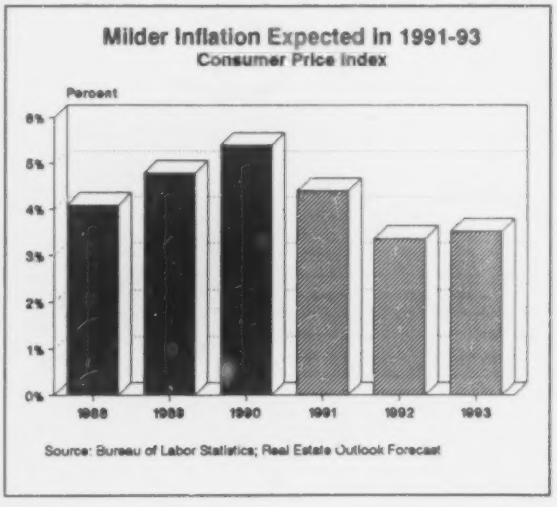
The labor markets continued to deteriorate in March when, for the ninth consecutive month, nonfarm payrolls shrunk. The loss of 205,000 jobs brings the total number of cutbacks to 1.6 million positions since June. Although job losses typically continue to mount even at the outset of a recovery, the high figure was disappointing.

The Fed's reaction to the release of these figures was telling: After easing immediately following the release of the two previous employment reports, the Fed stood pat. Perhaps the Fed is willing to ride out the weak numbers a bit longer and give its previous easing measures more time to work. The Fed is probably also concerned with the recent inflation numbers. The so-called core rate of inflation -- the Consumer Price Index less the volatile energy and food components -- has recorded big gains in the past two months, as shown in the chart at right. Concerned that easing now would hasten the recovery only a little while risking an outburst of inflation, the Fed may wait until mid-April to ease again, taking its cue from the inflation numbers due out at that time.

But there are other signs that inflation won't burst out: Besides lower oil prices, a steep decline was reported in a price index maintained by the National Association of Purchasing Managers, indicating continued softness in the economy. And the Commodity Research Bureau's index of futures prices on raw materials such as metals, grains, livestock and lumber has continued the decline that started last fall.







Housing Starts

(Seasonally Adjusted Annual Rates, in Thousands)

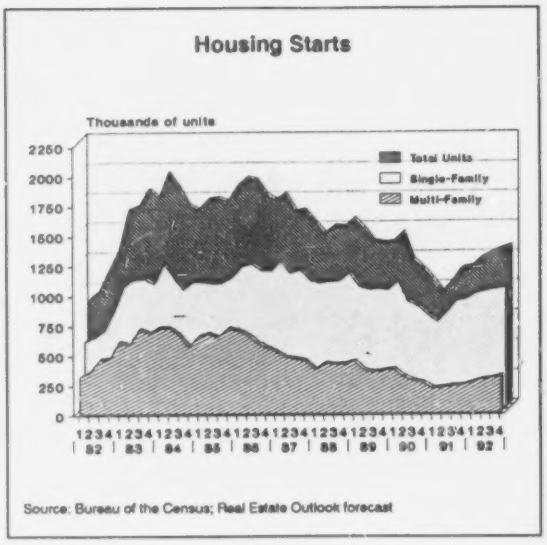
National Data

	Total	SF	2-4	5+
Feb 1990	1,459	1,127	41	291
Oct 1990	1,026	839	22	165
Nov 1990	1,130	769	54	307
Dec 1990	971	751	17	203
Jan 1991	850	652	28	170
Feb 1991	***989***	***771***	***49***	***169***
Annual Averages:				
1989	1,381	1,005	56	320
1990	1,203	901	37	265
Percent Changes in February 1991 since:				
Feb 1990	-32.2	-31.6	19.5	-41.9
Jan 1991	16.4	18.3	75.0	-0.6

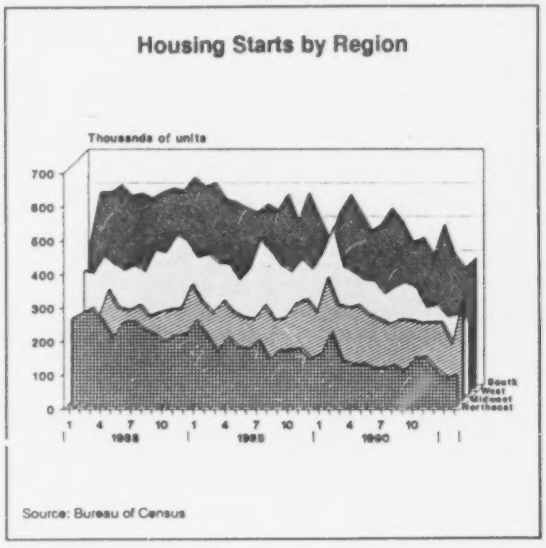
Regional Data

	Northeast	Midwest	South	West
Feb 1990	221	285	572	381
Oct 1990	144	230	392	260
Nov 1990	147	232	483	268
Dec 1990	110	233	395	233
Jan 1991	87	167	356	240
Feb 1991	***92***	***296***	***384***	***217***
Annual Averages:				
1989	181	269	535	397
1990	135	259	478	330
Percent Changes in February 1991 since:				
Feb 1990	-58.4	3.9	-32.9	-43.0
Jan 1991	5.7	77.2	7.9	-9.6

Source: Bureau of Census, Construction Reports, Series C25



Source: Bureau of the Census; Real Estate Outlook forecast



Source: Bureau of Census

If it is true that the housing sector will lead the economy out of the recession, then February's impressive activity in the housing market is a good sign. Housing starts, for example, posted a 16.4 percent increase in February, reaching an annual rate of 989,000 units. This increase is the biggest monthly gain in over a year and more than reverses January's steep decline. Accounting for most of the increase, single-family starts were 18 percent above January's rate of 652,000 units. Multifamily starts rose 10.1 percent.

Starts nearly doubled in the Midwest from January's depressed levels. February's rate of 296,000 units is the highest rate in more than a year. In the South, starts totalled 384,000 units, an increase of 7.9 percent. The Northeast registered a 5.7 percent increase, bringing the rate of housing starts to 92,000 units. Only the West experienced a decline as starts fell by 9.6 percent to 217,000 units -- the lowest level since August 1982, during the 1981-82 recession.

The recent reports of increased interest from first-time home buyers attracted by lower mortgage rates is reflected in the forecast for the remainder of the year. With single-family homes accounting for 96 percent of the entire gain, total housing starts are expected to increase by 88,000 units in the second quarter of 1991. Single-family starts should continue to exhibit vigorous growth during the latter half of 1991. Total starts will grow by nearly 20 percent in 1992.

New Home Sales

(Seasonally Adjusted Annual Rates, in Thousands)

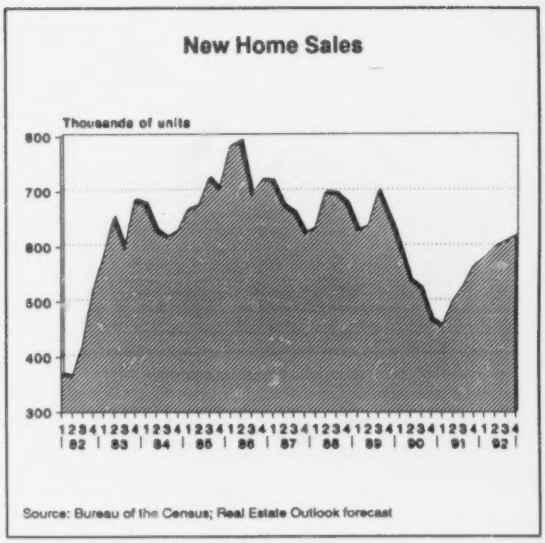
National Data

		Mo. Ago % Chg.	Yr. Ago % Chg.
Feb 1990	606	-3.3	-2.7
Mar 1990	559	-7.8	0.5
Apr 1990	534	-4.5	-12.5
May 1990	535	0.2	-17.8
Jun 1990	549	2.6	-15.0
Jul 1990	541	-1.5	-27.0
Aug 1990	525	-3.0	-27.0
Sep 1990	504	-4.0	-21.0
Oct 1990	465	-7.7	-26.9
Nov 1990	480	3.2	-30.1
Dec 1990	460	-4.2	-27.3
Jan 1991	402	-12.6	-35.9
Feb 1991	***467***	***16.2***	**-22.9**
Annual Averages:			
1989	654		-3.1
1990	532		-18.7

Regional Data

	Northeast	Midwest	South	West
Feb 1990	68	84	265	189
Aug 1990	63	88	236	138
Sep 1990	61	93	215	134
Oct 1990	74	70	209	113
Nov 1990	68	86	205	122
Dec 1990	63	84	194	120
Jan 1991	51	64	176	111
Feb 1991	***54***	***109***	***192***	***113***
Annual Averages:				
1989	90	103	258	202
1990	74	89	223	146
Percent Changes in Febuary 1991 since:				
Feb 1990	-20.6	29.8	-27.5	-40.2
Jan 1991	5.9	70.3	9.1	1.8

Source: Bureau of Census, Construction Reports, Series C25



A renewed interest in homebuying in the latter half of January, noted by many REALTORS®, translated into an increase in new home sales for February. The month's new home sales were 16.2 percent higher than January's level of 402,000 units. A rebound in consumer confidence following the end of the Persian Gulf war together with lower mortgage rates attracted prospective homebuyers to the housing market.

On a regional basis, the Midwest recorded a 70.3 percent increase from January's dismal performance, bringing the sales rate to 109,000 units. The South recorded a 9.1 percent growth rate, with sales increasing to 192,000 units. In the Northeast, sales grew by 5.9 percent to 54,000 units. The West recorded modest growth, increasing 1.8 percent to 113,000 units.

Favorable financing conditions are expected to continue through 1991, and prospective homebuyers appear to be ready to take advantage of low mortgage rates. New home sales are expected to rally in the second quarter of 1991, increasing 10.6 percent to 502,000 units. Growth will continue throughout the year, with new home sales increasing by 5.4 and 6.8 percent in the third and fourth quarters of 1991, respectively. By the fourth quarter of 1991, new home sales are projected to be 111,000 units above the first quarter rate of 454,000 units. In 1992, new home sales are expected to reach a level of 601,000 units, an increase of 17.3 percent from 1991's level of 513,000 units.

Existing Single-Family Home Sales

(Seasonally Adjusted Annual Rates, in Thousands)

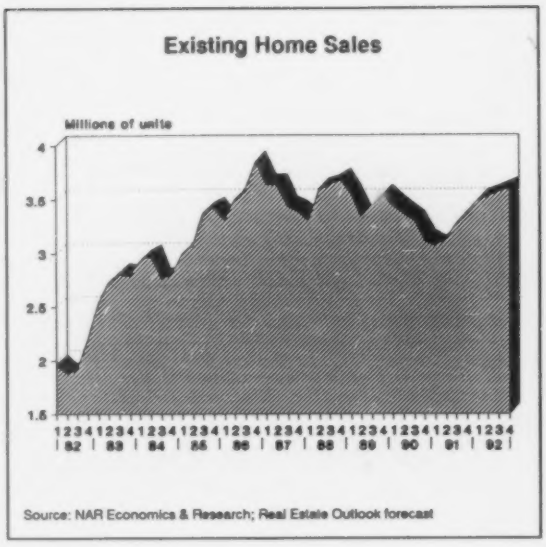
National Data

		Mo. Ago % Chg.	Yr. Ago % Chg.
Feb 1990	3,420	-1.4	-3.7
Mar 1990	3,440	0.6	0.3
Apr 1990	3,370	-2.0	-2.0
May 1990	3,350	-0.6	3.1
Jun 1990	3,370	0.6	1.2
Jul 1990	3,320	-1.5	-1.8
Aug 1990	3,410	2.7	-0.9
Sep 1990	3,160	-7.3	-10.0
Oct 1990	3,070	-2.8	-12.0
Nov 1990	3,150	2.6	-11.5
Dec 1990	3,130	-0.6	-12.1
Jan 1991	2,900	-7.3	-16.4
Feb 1991	***3,130***	***7.9***	***-8.5***
Annual Averages:			
1989	3,467		-2.5
1990	3,305		-4.7

Regional Data

	Northeast	Midwest	South	West
Feb 1990	550	930	1,310	640
Sep 1990	520	880	1,240	520
Oct 1990	500	820	1,240	500
Nov 1990	500	860	1,280	500
Dec 1990	500	880	1,260	490
Jan 1991	460	810	1,180	450
Feb 1991	***500***	***880***	***1,220***	***540***
Annual Averages:				
1989	597	931	1,320	617
1990	523	908	1,313	558
Percent changes in February 1991 since:				
Feb 1990	-9.1	-5.4	-6.9	-15.6
Jan 1991	8.7	8.6	3.4	20.0

Source: National Association of Realtors,® "Home Sales"



Falling home prices and lower mortgage rates brought buyers back into the marketplace in February. Sales of existing homes recorded their largest increase since April of 1986, increasing 7.9 percent to 3.13 million units. Nevertheless, February sales remain 8.5 percent below their year-ago sales rate.

Sales activity was up in every part of the country, with the Western region leading the rally. In that region, sales increased by 20 percent to an annual rate of 540,000 units. The Northeast, which has been dominated by sluggish sales in high-cost markets, posted an 8.7 percent increase, to an annual rate of 500,000 units. In the Midwest sales jumped 8.6 percent to 880,000 units. The South recorded a resale rate of 1.22 million units, up 3.4 percent from January.

The combined impact of lower mortgage rates and falling home prices has made homeownership more affordable to those with modest incomes, particularly the entry-level buyer. During the second quarter of 1991, sales are expected to be up, and by mid-summer the full impact of favorable mortgage rates should be reflected in a noticeably larger volume of purchases. By the fourth quarter of 1991, sales are projected to be 322,000 units above the first quarter's level of 3.06 million units. This will position the market for robust growth in 1992, when sales are expected to increase by 10.4 percent. An expanding economy and attractive mortgage rates in 1992 should put sales activity at its highest pace since 1988.

Single-Family Home Prices

(In Dollars)

National Data

	Median		Average	
	Existing	New	Existing	New
Feb 1990	95,100	126,900	118,200	150,900
Sep 1990	94,400	113,000	116,800	142,100
Oct 1990	92,900	120,000	115,900	153,000
Nov 1990	92,000	118,900	115,600	144,800
Dec 1990	91,700	127,000	114,100	153,900
Jan 1991	95,600	120,000	123,000	152,300
Feb 1991	***94,800***	***127,500***	***120,600***	***156,800***
Annual Averages:				
1989	92,900	120,400	118,000	148,300
1990	95,200	122,300	118,300	149,200
Percent changes in February 1991 since:				
Feb 1990	-0.3	0.5	2.0	3.9
Jan 1991	-0.8	6.3	-2.0	3.0

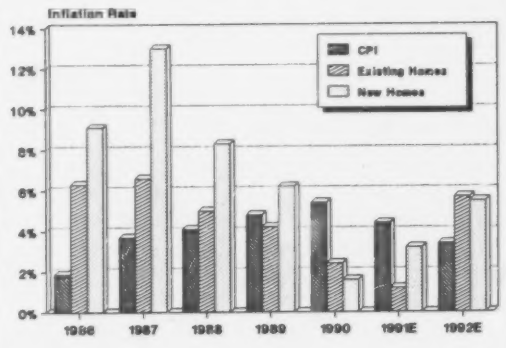
Regional Data

Median Prices for Existing Single-Family Homes

	Northeast	Midwest	South	West
Feb 1990	143,400	73,800	85,300	142,600
Sep 1990	137,100	74,200	85,900	134,700
Oct 1990	136,200	72,000	83,200	142,000
Nov 1990	134,200	71,800	83,500	139,600
Dec 1990	134,400	72,300	82,800	131,400
Jan 1991	136,900	74,500	84,600	149,600
Feb 1991	***137,700***	***76,000***	***84,000***	***141,500***
Annual Averages:				
1989	145,100	71,200	84,400	139,800
1990	141,300	73,700	85,700	139,700
Percent changes in February 1991 since:				
Feb 1990	-4.0	3.0	-1.5	-0.8
Jan 1991	0.6	2.0	-0.7	-5.4

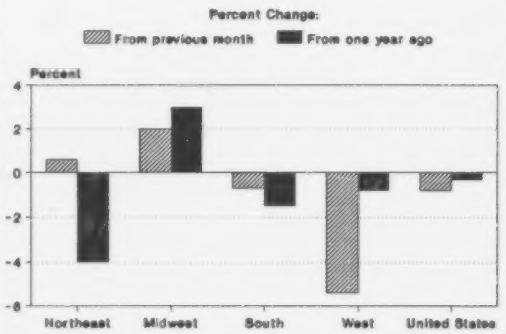
Source: National Association of Realtors,® "Home Sales"

Home Prices



Source: Bureau of the Census; E Real Estate Outlook forecast

Home Prices by Region



Source: NAR Economics & Research

The national median existing single-family home price declined between January and February, making homeownership more affordable for prospective buyers. February's median price of $94,800 was 0.8 percent below January's price of $95,600 and 0.3 percent below the February 1990 price of $95,100. In the market for new homes, the median price increased 6.3 percent to $127,500 in February. The median price of a new home is 0.5 percent above last February's level of $126,900.

The average price of existing homes decreased by 2 percent in February, falling to $120,600. Since February 1990, the average price has risen 2 percent. An increase of 3 percent added $4,500 to the average price of a new single-family home.

Modest appreciation in the median price of existing single-family homes is expected over the next year, with an overall increase of 1.2 percent in 1991. Prices will begin to firm at year end, and are projected to increase 5.7 percent in 1992. New single-family home prices should experience slightly higher growth in 1991, with prices increasing by 3.2 percent. In 1992 the median price of new single-family homes will increase by 5.5 percent.

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Forecasting & Policy Analysis

FROM BOOM TO BUST AND BACK AGAIN:
The Influence of Tax Reform on the Value of Income-Producing Property

Introduction

Over the last 10 years, the real estate sector of the U.S. economy has been buffeted by a series of major tax policy changes including the 1981 Economic Recovery Tax Act (ERTA), the 1984 and 1985 Tax Reform Acts and the 1986 Tax Reform Act (TRA). The most significant tax reforms have been ERTA and TRA.

While ERTA is widely credited with having created the booming real estate markets of the 1980s, TRA is now generally blamed for having triggered a persistent depression in the housing sector of the economy that has spread to the general economy and wreaked havoc on the nation's financial system. The severity of this depression is attributable in a large part to the juxtaposition of these two major tax reforms, each of which had completely opposite effects on the housing markets.

What is more, many of the provisions of TRA that affected real estate investments applied not just to future investments but to most existing investments as well. As a result, the value of existing real estate investments declined sharply in many markets. After a brief review of major tax policy changes over the last decade, this paper uses standard cash flow analysis to examine the impact of four key tax code changes under TRA on the value of income-producing properties and discusses possible policy changes that could ameliorate three of these tax reforms which have hurt real estate investments.

While accounting and partnership changes affecting the financing of real estate investments were arguably very damaging to real estate and contributed significantly to the loss in value to commercial property, an analysis of their impact is beyond the scope of this paper. The cash flow analysis presented here simulates the impact of major provisions of TRA as they affect an individual investor, and not group investment programs.

Major Tax Policy Changes in the 1980s

A primary goal of ERTA, enacted in 1981, was to stimulate the economy. The act is perhaps best known for reducing the top marginal income tax rate from 70 to 50 percent. For taxpayers in the highest tax bracket, the cut in top tax rate reduced the benefit of itemized deductions such as the popular homeowner deductions for mortgage interest and property taxes.

However, ERTA also included provisions directly targeted to boost the housing sector of the economy. In addition to reducing the top marginal income tax rate, the act reduced the marginal tax rate on long-term capital gains for the highest-income investors from 28 percent to 20 percent, and shortened the tax lifetime for residential rental property from 32 to 15 years.

As a result, investment in housing and commercial real estate development increased significantly in many markets between 1981 and 1984. In fact, ERTA was so successful in boosting the real estate sector of the economy, Congress increased the tax lifetime for real property to 18 years in 1984 and to 19 years in 1985.

In 1986, the impact of the 1984 and 1985 tax acts was dwarfed by TRA which completely reversed most of the economic recovery provisions enacted in 1981 as part of ERTA. In contrast to ERTA, which lowered the maximum capital gains tax rate from 28 percent to 20 percent, TRA eliminated the distinction between capital gains and other types of income and raised the top marginal tax rate to 33 percent.

Moreover, TRA extended the tax lifetime to 27.5 years for residential properties and to 31.5 years for commercial properties and required straight-line depreciation rather than the faster 175 percent declining balance method. These less generous depreciation rules coupled with lower marginal income tax rates significantly reduced the value of depreciation tax benefits.

On top of these conventional changes, TRA created a new category of income called passive income. Under TRA, income is deemed passive if it is derived from the conduct of a trade or business and the taxpayer does not materially participate in the activity. The material participation rule is irrelevant in the case of rental real estate since all rental activities are considered passive activities.

Passive Loss Limitations Raise Cap Rates

According to the passive loss limitations rules, deductions from passive activities such as rental activities, to the extent they exceed income from such activities, generally may not be deducted

from other income, such as salary and portfolio income. Taxpayers with less than $100,000 of adjusted gross income (AGI) are permitted to offset up to $25,000 of passive losses against nonpassive income. The $25,000 allowance is phased out gradually for taxpayers with AGIs above $100,000 until it is eliminated for those with AGIs above $150,000.

For taxpayers who have used up their respective allowance or who have AGIs in excess of $150,000, passive losses may only be used to offset passive income. In cases where passive losses exceed passive income, the excess losses are suspended and carried forward to offset passive income that might arise in subsequent years and, to the extent not used, are allowed to offset other income in the year a taxpayer disposes of his interest in the activity. Although investors in passive activities are permitted to offset passive losses eventually, they may have to sustain such losses for many years, and during this period they are denied any earnings from money tied up in the suspended losses.

In addition, the limitation on passive losses also raises the after-tax risk of rental projects, since it provides limited loss-offset in unprofitable projects. The higher risk associated with rental projects is translated immediately into higher capitalization rates for rental real estate projects. Moreover, the loss limitations also discourage high-leverage rental projects because the interest deductions in these projects are no longer as valuable to their investors.

Disincentives Contained in TRA Caused Abrupt Drop in Property Values

Almost overnight, the present values of most real estate projects plummeted when TRA was enacted. The results of standard cash flow analysis shown in Table I reveal how the present value of a typical residential rental property, operating before TRA, dropped more than 20 percent after TRA was enacted, assuming all other variables remained constant.

In fact, many other variables did not remain constant. For example interest rates and housing starts declined, which together probably reduced the impact of TRA on property values in some markets. Thus the following results from partial equilibrium simulations probably overstate the impact of TRA on property values in some markets, especially in those markets where the supply of vacant rental space has been relatively low. In other markets, however, where the supply of vacant rental space in the post-TRA period has remained high, the following simulation results may closely approximate the short-run impact on the value of income-producing properties.

Case 1 of Simulation I shown in Table I indicates that a residential rental property generating an average net income for such a property and subject to typical financing assumptions had an initial value of $7,447,345 and an after-tax internal rate of return (A/T IRR) of 33.1 percent before TRA. After TRA, this property under the same assumptions yields a projected A/T IRR of 16.2 percent as shown in case 5.

Because the actual A/T IRR is exogenously determined in the capital markets, however, the before-tax IRR and the value of the property are the only variables that can change in response to TRA. If it is assumed that rents are held in check by a large inventory of existing buildings and expenses remain unchanged, only the price of the property can change in the short run. Thus in order to maintain an unchanged A/T IRR of 33.1 percent, the value of the property after TRA drops 20.37 percent to $5,930,000 as shown in case 5.

Because many tax provisions were enacted simultaneously with TRA and since the effect of each of these provisions is interdependent with each of the other provisions, it is difficult to assess the precise effect of individual provisions on the present value of the property. Comparison of Simulation I and Simulation II shows that the measured effect of passive loss limits and 1986 depreciation rules depends on the order in which it is assumed such provisions are enacted.

In Simulation I, it is assumed that TRA is implemented one provision at a time beginning with a cut in the marginal income tax rate, then an increase in the capital gains rate, then application of passive loss limits and finally a change in depreciation rules. The reduction in marginal income tax rates by itself reduces the property's present value by 11.82 percent. Dropping marginal income tax rates and raising the top capital gains tax rate cause a 12.89 percent decline in present value. Applying passive loss limits in addition to all of the previous changes would reduce the property's present value by 20.19 percent, assuming that all passive losses must be carried forward to be offset against future passive income. As the final case shows, adopting all of the above tax changes plus the 1986 depreciation rule results in a 20.37 percent decline in the property's present value. From these results, it appears that the passive loss limits account for 7.3 percentage points (20.19%-12.89%)

of the 20.37 percent decline, or more than one third of the total decline.

Rearranging the order in which the tax provisions are implemented, however, significantly alters the apparent effect of each provision on the property's present value. For example, in Simulation II, the order of the tax provisions is the same except that the 1986 depreciation rule is assumed to be adopted before the passive loss limits are applied. Under this assumption, the depreciation rule accounts for 6.04 percentage points (18.93%-12.89%) of the 20.37 percent decline, representing slightly less than a third of the total decline.

The reason that the order in which passive loss limitations and new depreciation rules are adopted substantially alters their respective impact on the property's present value is that these two tax provisions are interdependent. The benefit of more rapid depreciation is smaller to the extent that passive losses can only be used to offset passive gains, since passive losses resulting from faster depreciation must be deferred. Moreover, the benefit of being allowed to offset ordinary income with passive losses is smaller to the extent that depreciation benefits are reduced, since more rapid depreciation, in many cases, is a major source of passive losses.

Although rearranging the order in which the tax provisions of TRA are implemented alters the apparent effect of each provision, the 20.37 percent total decline in the property's present value remains unaffected. This predicted decline in the property's present value, however, assumes that all passive losses are carried forward. The total decline would be slightly less to the extent that an individual is not fully constrained by the passive loss limits, either because he meets the qualifications required to be able to offset up to $25,000 of passive losses against active income and has not already used all of this allowance, or because he has sufficient net passive gains from other activities. However, most individuals undertaking an investment of this magnitude, on average, are likely to be fully constrained by the passive loss limitations.

Tax Policy Changes Affected Real Estate First, Then Savings and Loans

After nearly five years of priming the real estate pump, Congress suddenly reversed course in 1986, abruptly choking the industry. While it was conceded, at the time, that real estate investors would suffer losses as a result of TRA at first, it was argued that such losses would be at least partially offset by rising rents because the new tax laws would discourage new construction which, in turn, would force up rents of existing buildings. As it turns out, however, the supply of existing buildings, has been sufficient to keep downward pressures on rents for many years.

With the rules changed virtually overnight and with only limited provisions included to apply the new tax laws gradually so as to allow investors time to adjust, investors suddenly found themselves having to swallow 15 to 20 percent declines in the values of their real estate portfolios. Reductions in project values of this magnitude were sufficient to push many marginal projects into insolvency.

Since, according to most sources, mortgages and mortgage-backed securities account for almost 86 percent of all savings and loan assets, the significant increase in real estate investment failures in turn reduced the solvency of many marginally solvent savings and loans. Thus, where Congress originally sought to bring the economy out of recession by boosting the housing sector, it eventually contributed to the current decline in the economy by hitting the housing sector abruptly with costly tax changes that significantly lowered asset values which, in turn, substantially exasperated an existing tightness in credit markets.

Reversing the Trend in Real Estate Prices

One of the basic underlying causes of the current credit crunch is the perception, justified or not, that real estate under current market conditions in many regions represents an inferior investment opportunity. The downward trend of real estate prices in many markets that had experienced sustained and rapid price appreciation has reduced expectations with respect to the future earning potential of real estate investments. In time, the market will eventually adjust to the radical changes in tax policy brought about by the Tax Reform Act of 1986 (TRA), resulting in a reduced supply of both residential rental and commercial buildings and higher rents. Given the severity of the shock to the industry caused by TRA, however, the adjustment period could be relatively long, causing persistent harm both to the banking sector and to the economy in general.

One option that could reduce this adjustment period would be to mitigate the severity of certain provisions of TRA as they affect real estate investments. As shown in the preceding simulations, the provisions that have reduced the value of commercial property the most include

TABLE I

INCREMENTAL EFFECTS OF SELECTED PROVISIONS OF 1986 TAX REFORM ACT
ON THE VALUE OF A RESIDENTIAL RENTAL PROPERTY

BASIC ASSUMPTIONS:

Price	$7,447,345	Capitalization Rate	8.7%
Land Value As Percent of Price	15.0%	Initial Annual Operating Costs	$665,855
Furniture and Fixtures As Percent of Price	5.0%	Initial Annual Rents	$1,313,774
Structure As Percent of Price	80.0%	Growth Rate of Operating Costs and Rents	4.0%
Downpayment As Percent of Price	10.0%	Inflation	4.0%
Interest Rate	10.0%		

SIMULATION I: PASSIVE LOSS LIMITS APPLIED BEFORE DEPRECIATION RULE CHANGED

Case	Cumulative Changes to Pre-1986 Tax Law	Before Tax Internal Rate of Return (IRR)	Projected After-Tax Internal Rate of Return (A/T IRR)	Present Value of Residential Rental Property Required to Yield A/T IRR Under Pre-1986 Tax Law	Cumulative Change in Present Value of Residential Rental Property to Yield A/T IRR Under Pre-1986 Tax Law
1	No Change	19.20%	33.10%	$7,447,345	0.00%
2	28 Percent Top Income Tax Rate	19.20%	23.80%	$6,567,345	-11.82%
3	28 Percent Top Capital Gains Tax Rate	19.20%	22.70%	$6,487,345	-12.89%
4	Passive Loss Limits Apply	19.20%	16.20%	$5,944,000	-20.19%
5	Depreciation Under 1986 Rule	19.20%	16.20%	$5,930,000	-20.37%

SIMULATION II: DEPRECIATION RULE CHANGED BEFORE PASSIVE LOSS LIMITS APPLIED

Case	Cumulative Changes to Pre-1986 Tax Law	Before Tax Internal Rate of Return (IRR)	Projected After-Tax Internal Rate of Return (A/T IRR)	Present Value of Residential Rental Property Required to Yield A/T IRR Under Pre-1986 Tax Law	Cumulative Change in Present Value of Residential Rental Property to Yield A/T IRR Under Pre-1986 Tax Law
1	No Change	19.20%	33.10%	$7,447,345	0.00%
2	28 Percent Top Income Tax Rate	19.20%	23.80%	$6,567,345	-11.82%
3	28 Percent Top Capital Gains Tax Rate	19.20%	22.70%	$6,487,345	-12.89%
4	Depreciation Under 1986 Rule	19.20%	18.90%	$6,037,345	-18.93%
5	Passsive Loss Limits Apply	19.20%	16.20%	$5,930,000	-20.37%

Simulation results derived using planEASe Economic Analysis System.

those pertaining to the treatment of passive activity income, capital gains and depreciation rules. Table II reveals the cumulative impact of modifying these provisions on the value of the same typical residential rental property assumed in the previous simulations. While the number of ways the tax code can be changed is seemingly unlimited, for purposes of this study, three policy changes are considered: removal of passive loss restrictions; reduction of the maximum capital gains rate to the pre-TRA rate of 20 percent; reducing the depreciable life for real estate investments to the pre-TRA tax life of 19 years.

At first thought, it might seem that to make these three tax policy changes would be essentially to return to the pre-TRA tax treatment of real estate. However, the tax benefit of these tax policy changes would be considerably smaller today than they would have been before TRA because marginal income tax rates are substantially lower today than they were before TRA. In any case, the purpose of simulating the effects of these particular tax reforms is simply to indicate the sensitivity of a typical real estate investment's value to certain changes in tax laws, not to recommend specific tax code changes.

Simulation Results of Potential Tax Policy Changes

Three simulations are included to show the impact of each potential change in tax policy under different assumptions regarding an investor's marginal income tax rate. The 1990 tax act maintains the 28 percent tax bracket under previous law and establishes a new maximum tax bracket of 31 percent beginning at a taxable income of $49,300 for a single return and $82,150 for a joint return for 1991.

In addition to establishing a higher maximum rate, the act also imposes a reduction in the non-exempt itemized deductions in the amount of 3 percent of adjusted gross income (AGI) over $100,000 for single filers and married couples filing jointly. The reduction in non-exempt itemized deductions adds an additional 1 percentage point to the maximum marginal income tax rate for taxpayers with AGIs above $100,000. Thus the top marginal tax rate for some taxpayers is 32 percent.

The 1990 tax act also adds approximately 0.5 percent to a taxpayer's marginal tax rate for each personal exemption claimed if the taxpayer's AGI exceeds $150,000. As a result, a married couple with two children and AGI in excess of $150,000 could have a marginal tax rate of 34 percent. It is likely that the marginal investor in commercial real estate has a marginal income tax rate nearer 34 percent than 28 percent. To consider several possibilities, the marginal income tax rate is assumed to be 28 percent in Simulation I, 32 percent in Simulation II, and 34 percent in Simulation III.

If passive loss restrictions are removed, as assumed in case 2, the increase in the projected A/T IRR ranges from 2.7 percentage points in Simulation I to 3.3 percentage points in Simulation III. The change in the value of the property required to leave the actual A/T IRR unchanged ranges from 4.2 percent in Simulation I to 5.14 percent in Simulation III.

If in addition to removing passive loss restrictions, the top capital gains tax rate is lowered to the pre-TRA rate of 20 percent, as assumed in case 3, the value of the property would have to increase by at least 6.16 percent in Simulation I and by as much as 9.03 percent in Simulation III to leave the respective A/T IRRs unchanged. Combining these tax policy changes with a return to the pre-1986 depreciation rules, as shown in case 4, would result in a cash flow that would require at least a 10.78 percent increase in the property's value in Simulation I and a 15.10 percent increase in Simulation III to yield the respective actual A/T IRRs.

The Impact of Tax Reform on Capitalization Rates

If the passive loss restrictions are removed, investors in real property of this nature, which typically yields substantial losses until it is sold, will be more certain that they will be able to bear such sustained losses until a profit can be realized since they will be able to offset such losses against income from non-passive activity. Investors will no longer have to speculate whether they will be able to generate sufficient passive gains to offset passive losses as they occur. This reduction in uncertainty would reduce the riskiness of such an investment, which would result in a lower capitalization rate since a significant component of the capitalization rate is a risk premium.

The lower capitalization rate, in turn, would result in a higher property value given that property value is equal to the flow of income net of expenses discounted by the capitalization rate. Case 5 shows that the increase in value of this property could range from 11.85 percent in Simulation I to 18.20 percent in Simulation III if in conjunction with all of the above tax policy changes, the capitalization rate were to fall from its current rate of 8.7 percent to 8.2 percent.